US005809674A

United States Patent [19]

Key

[11] Patent Number: 5,809,674

[45] Date of Patent: Sep. 22, 1998

[54] **APPARATUS AND METHOD FOR INCREASING AN EFFECTIVE INFORMATION CARRYING SURFACE AREA ON A CONTAINER**

[76] Inventor: **Stephen M. Key**, 10212 Whitetail Dr., Oakdale, Calif. 95361

[21] Appl. No.: **627,786**

[22] Filed: **Mar. 28, 1996**

[51] **Int. Cl.**[6] **G09F 3/00**

[52] **U.S. Cl.** **40/306**; 40/310; 40/506

[58] **Field of Search** 40/506, 306, 312, 40/324, 661; 446/327, 321; 434/402, 427, 428; 206/459.5; 220/435

[56] **References Cited**

U.S. PATENT DOCUMENTS

1,064,576	6/1913	Washburn .	
1,312,611	8/1919	Chess .	
1,486,313	3/1924	Antwerp .	
2,013,616	9/1935	Rettenmeyer .	
2,441,607	5/1948	Walls .	
2,468,000	4/1949	Taylor .	
2,504,076	4/1950	Lindblom .	
2,706,464	4/1955	North	40/311 X
2,739,564	3/1956	North	40/311 X
2,844,893	7/1958	Keller .	
2,860,431	11/1958	Barnum .	
2,931,657	4/1960	Lewis .	
2,935,814	5/1960	Freeze .	
2,971,283	2/1961	Parker .	
3,278,182	10/1966	Lescher .	
3,374,911	3/1968	White .	
3,488,880	1/1970	Taylor .	
3,542,229	11/1970	Beyerleda .	
3,604,584	9/1971	Shank .	
3,733,002	5/1973	Fujio .	
3,960,713	6/1976	Carey .	
4,044,889	8/1977	Orentreich .	
4,381,615	5/1983	Lonsmin .	
4,405,045	9/1983	Villa-Real .	
4,877,119	10/1989	Hosking .	

FOREIGN PATENT DOCUMENTS

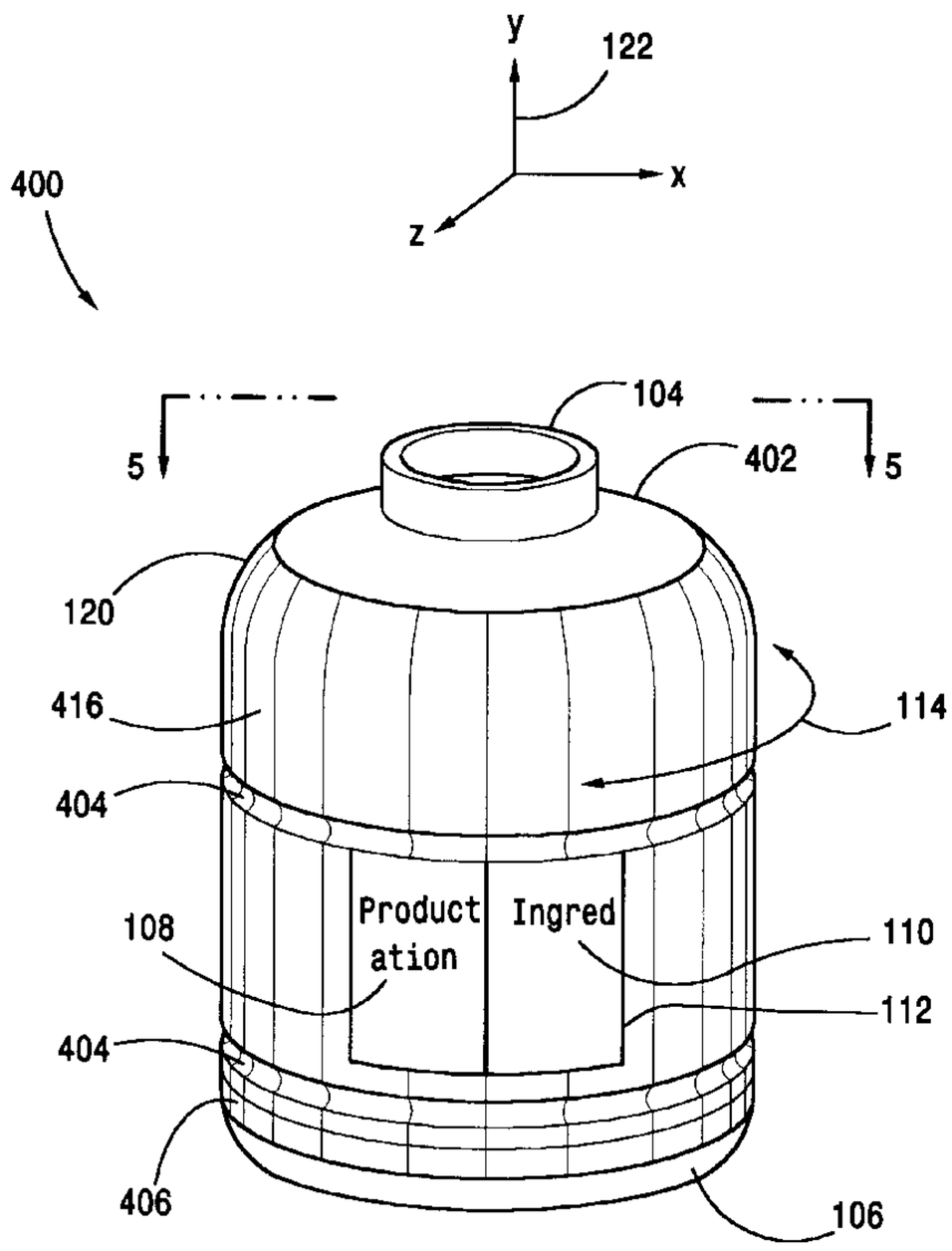
85214	3/1958	Denmark .	
1114750	4/1956	France	40/310
1347102	11/1963	France .	
2460260	1/1981	France .	
2677786	12/1992	France .	
327286	1/1935	Italy	40/506
1565	6/1888	Sweden .	

Primary Examiner—Cassandra H. Davis
Attorney, Agent, or Firm—Carr & Ferrell LLP

[57] **ABSTRACT**

A container has attached to its surface information fields containing information about the container's contents. A shell partially covered with an additional set of information fields and including a window is movably attached to the container so that when the shell is moved with respect to the container, the window reveals at least one of the information fields attached to the container surface. A method for manufacturing comprises the steps of affixing a first set of information fields to a container, defining a transparent window in a shell, and then disposing the shell around the container so that, in response to movement of the shell, the window reveals a variable subset of the information fields.

16 Claims, 10 Drawing Sheets



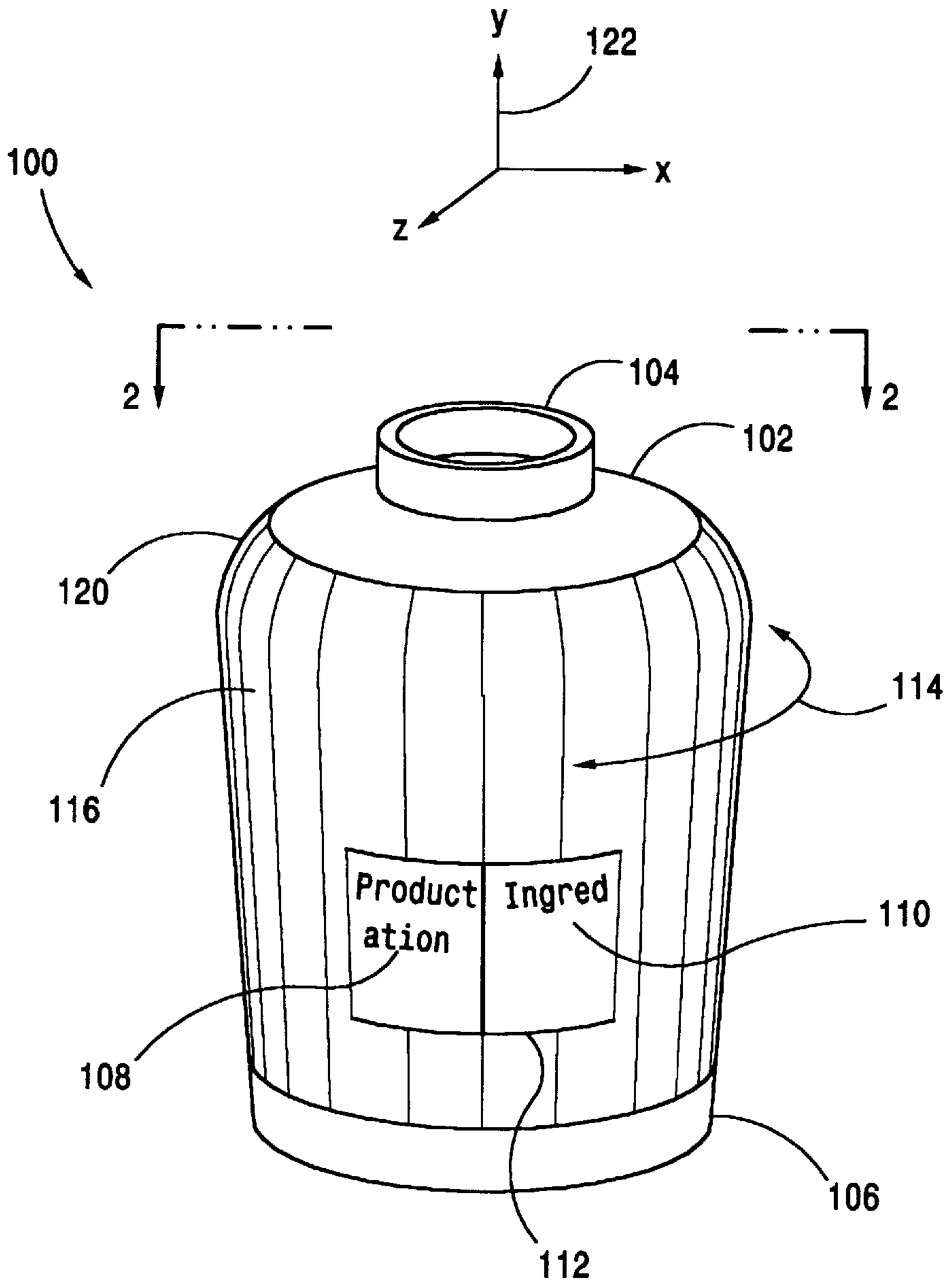

y
122
x
z
100
2
2
104
102
120
114
116
Product
ation
Ingred
110
108
106
112

FIG. 1

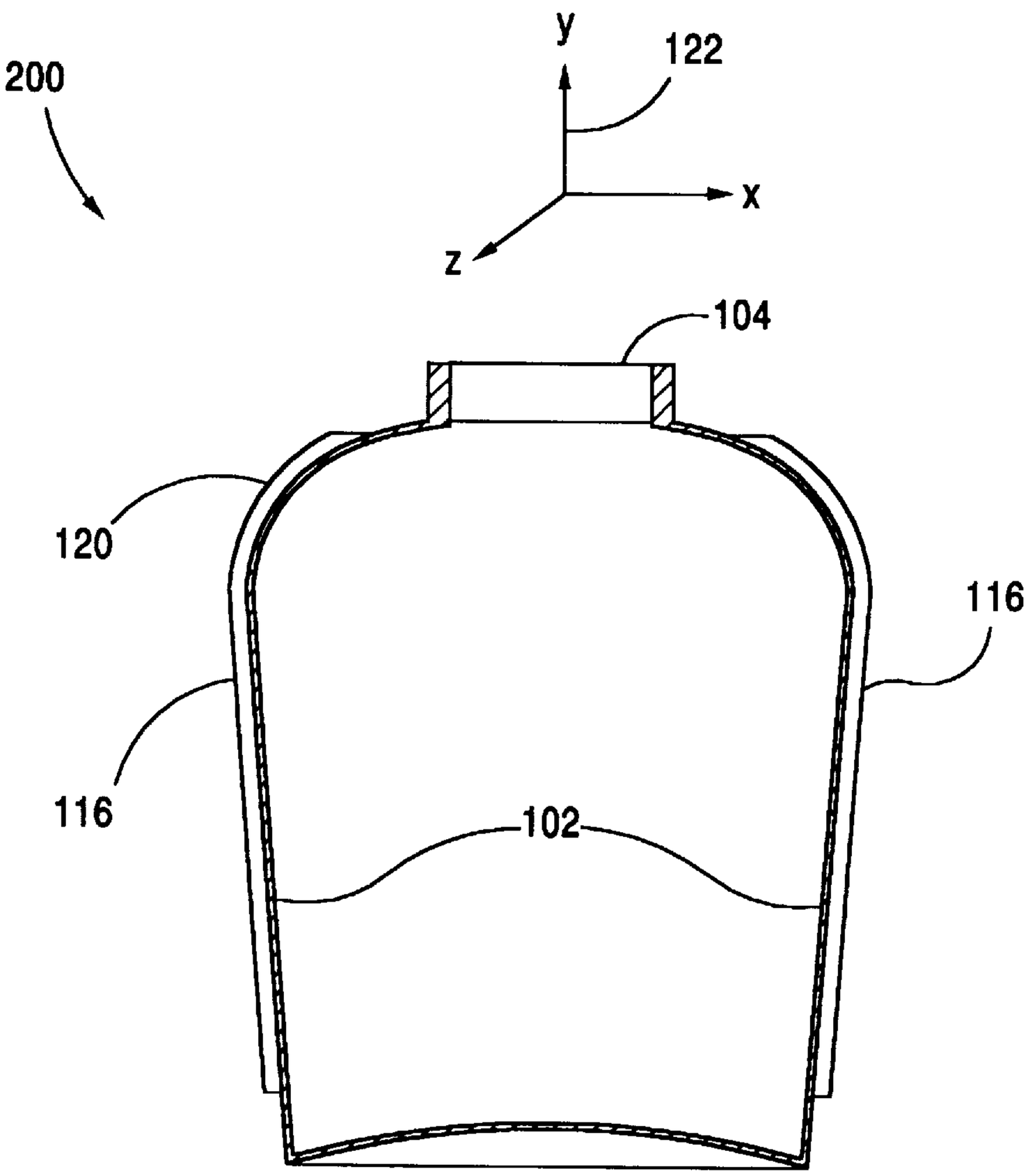


FIG. 2

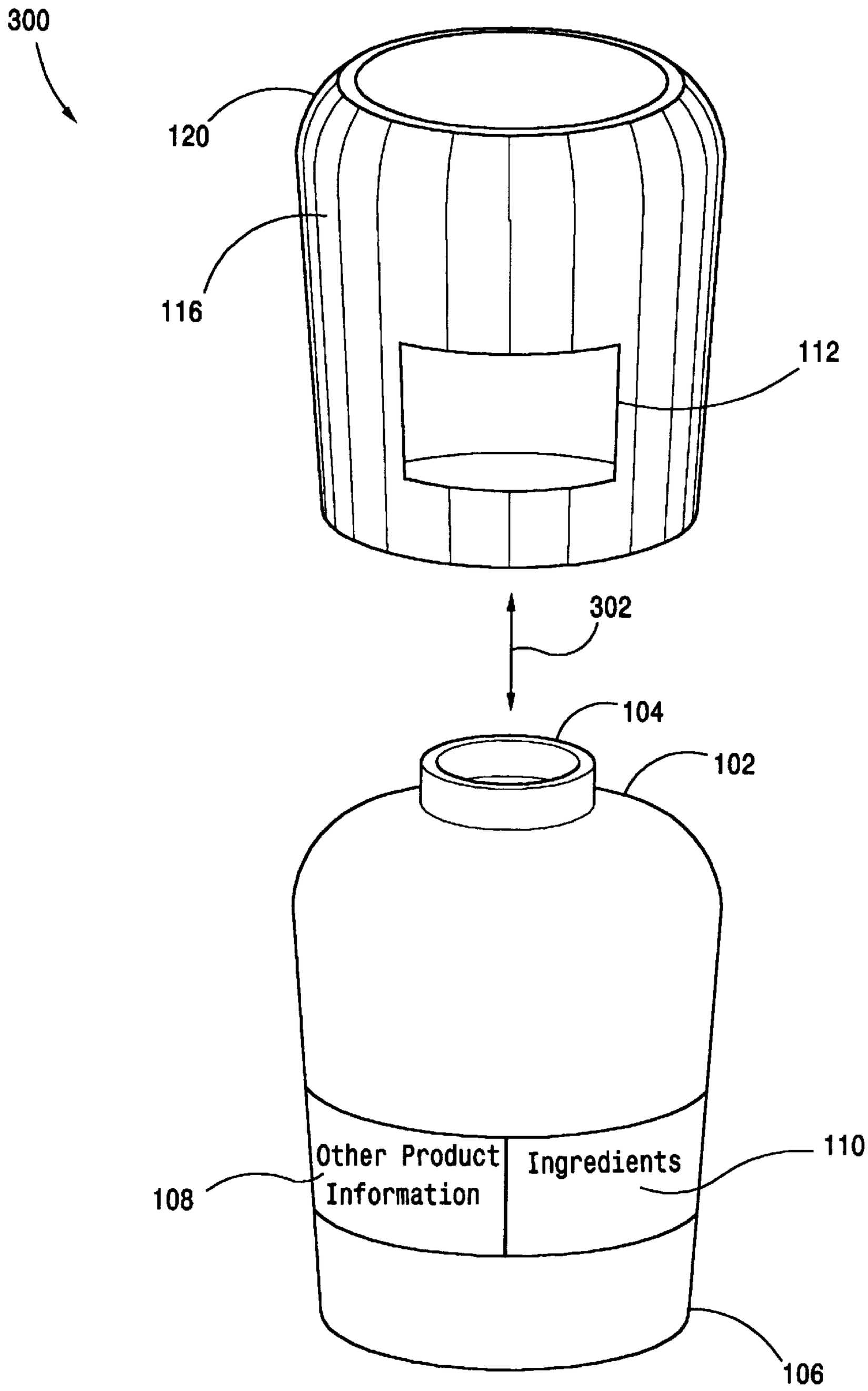

300
120
116
112
302
104
102
Other Product Information
108
Ingredients
110
106

FIG. 3

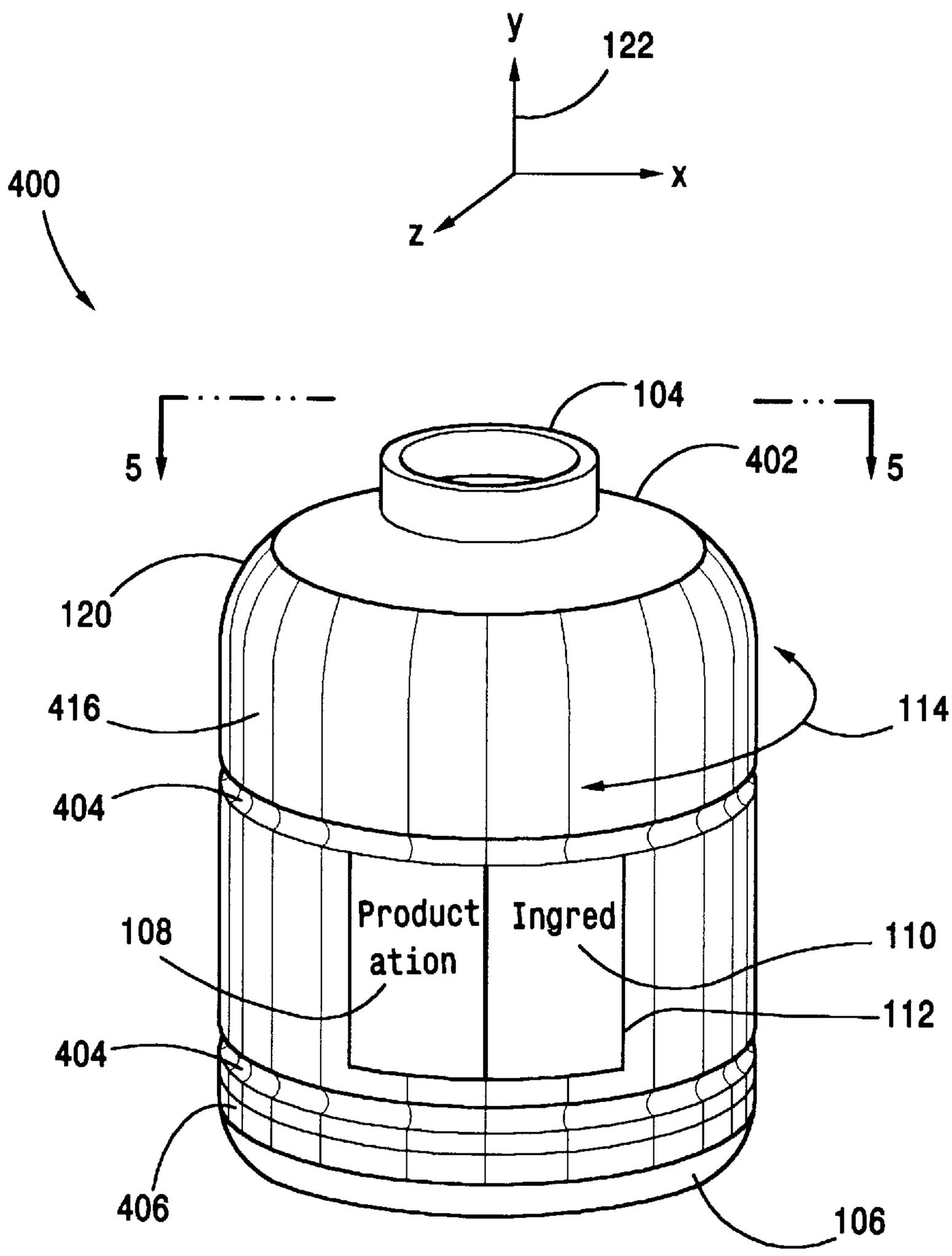

y
122
x
z
400
104
5
5
402
120
416
114
404
Product
ation
Ingred
108
110
112
404
406
106

FIG. 4

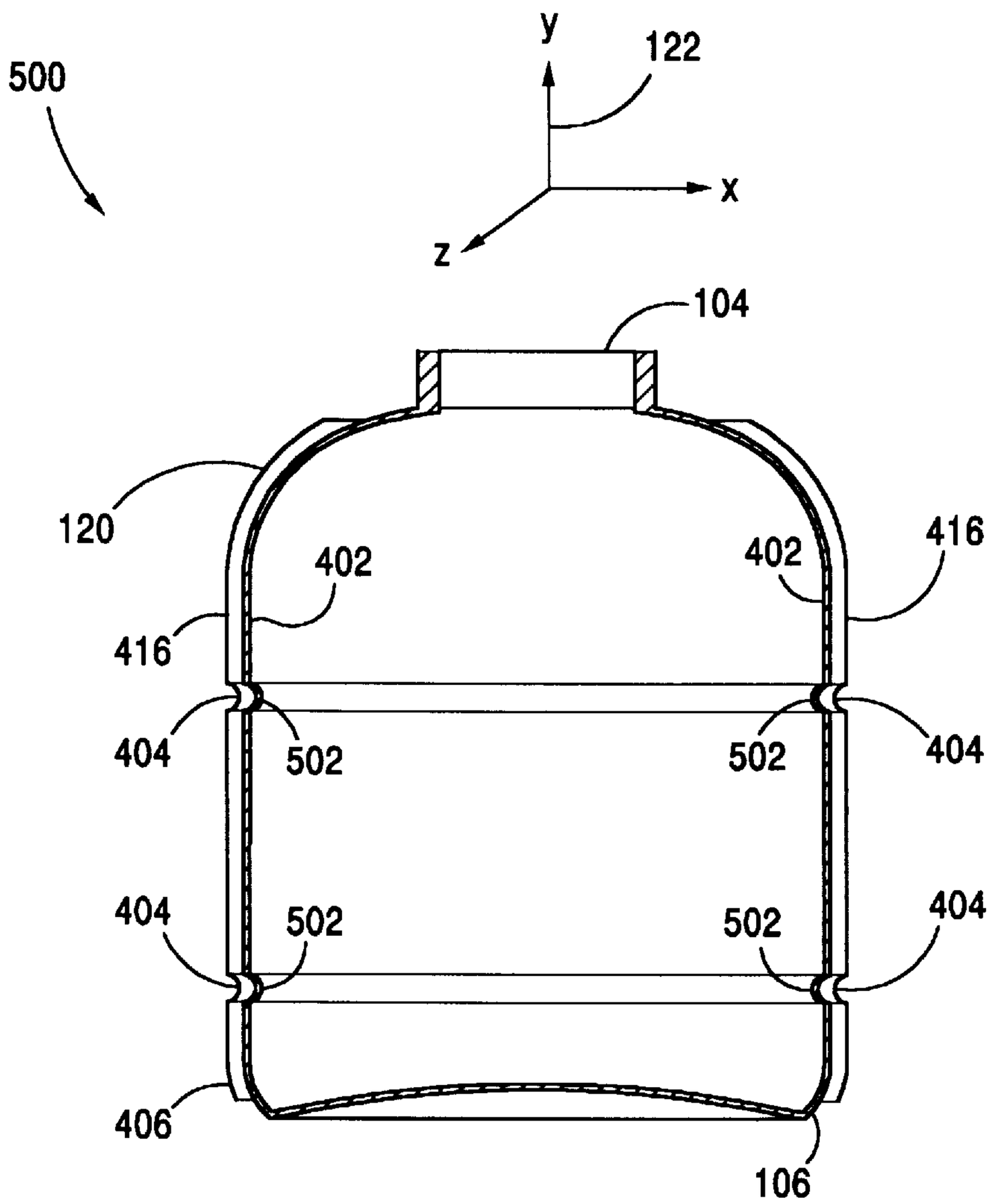

500
y
122
x
z
104
120
402
416
402
416
404
502
502
404
404
502
502
404
406
106

FIG. 5

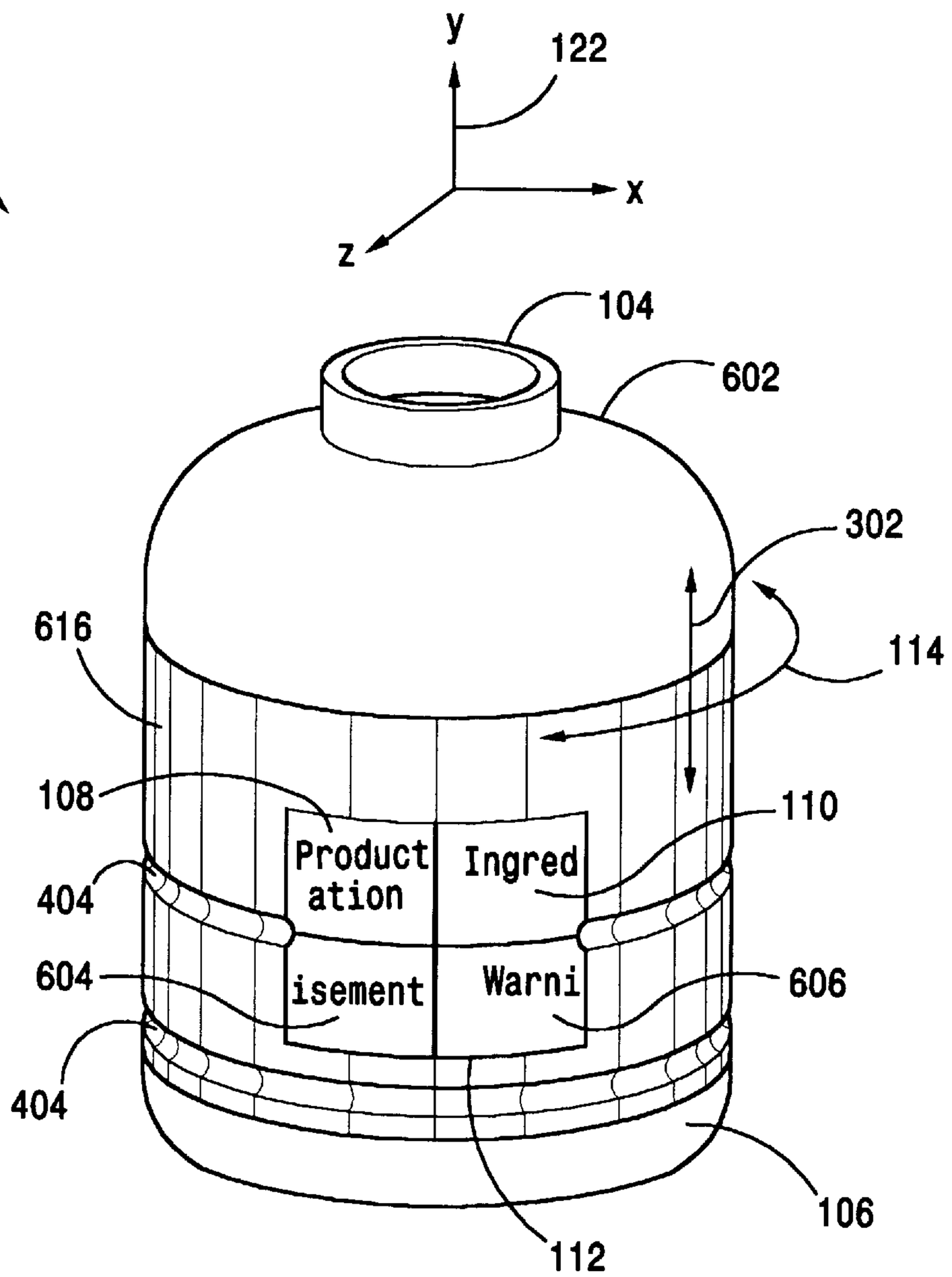

600
y
122
x
z
104
602
302
616
114
108
110
Product ation
Ingred
404
604
isement
Warni
606
404
106
112

FIG. 6

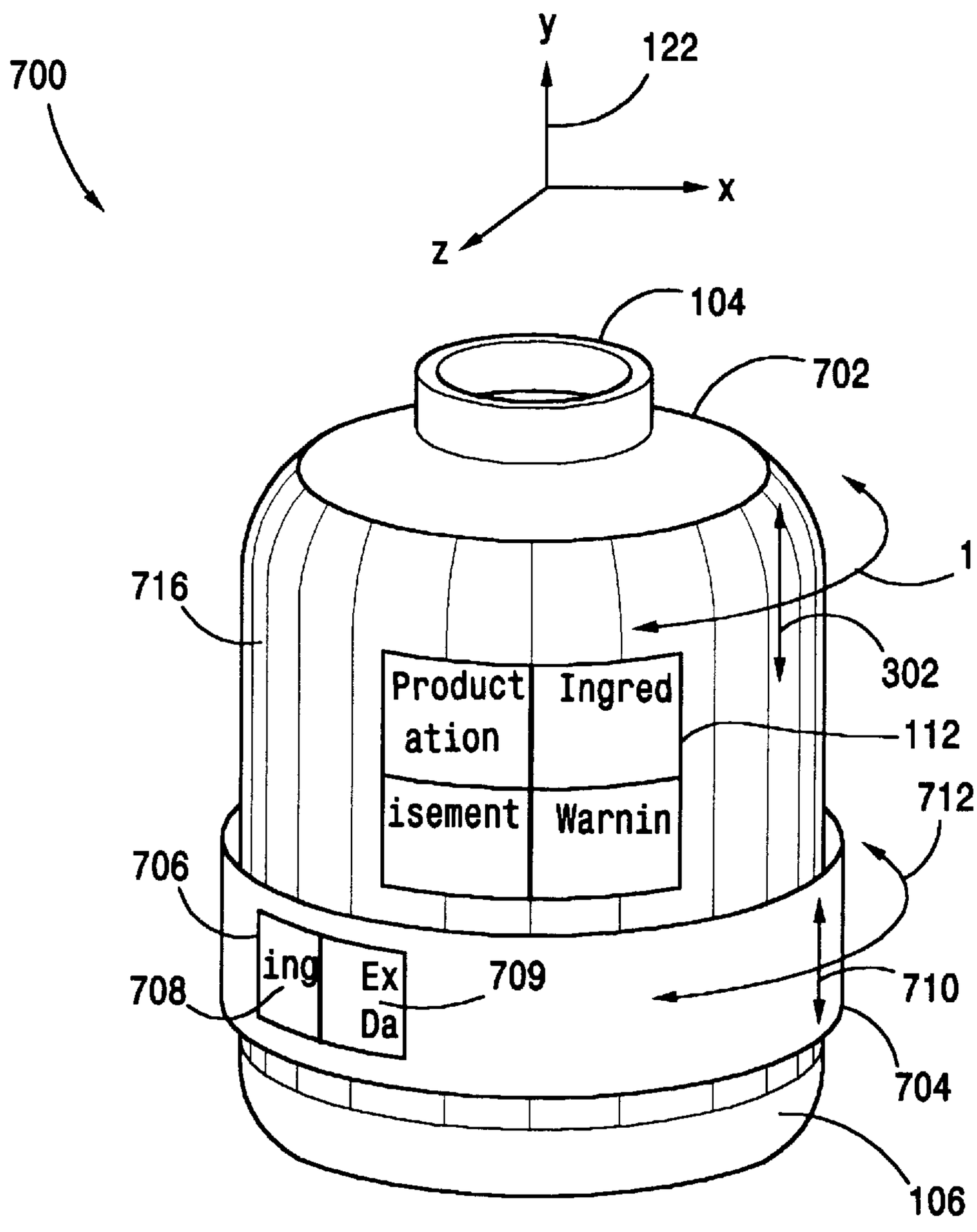

700
y
122
x
z
104
702
114
716
302
Product
ation
Ingred
112
isement
Warnin
712
706
ing
Ex
Da
709
708
710
704
106

FIG. 7

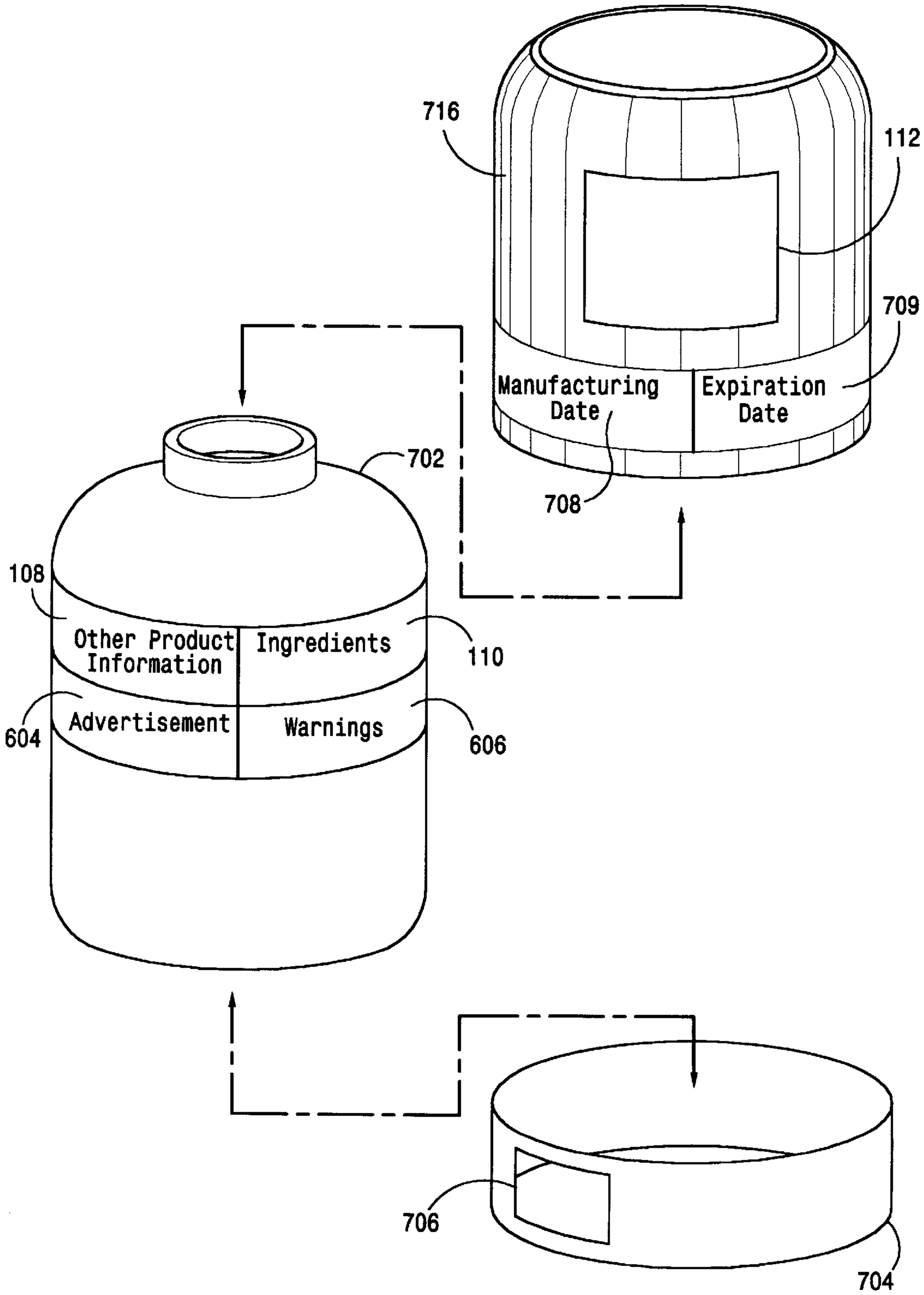

716
112
709
Manufacturing Date
Expiration Date
708
702
108
Other Product Information
Ingredients
110
604
Advertisement
Warnings
606
706
704

FIG. 8

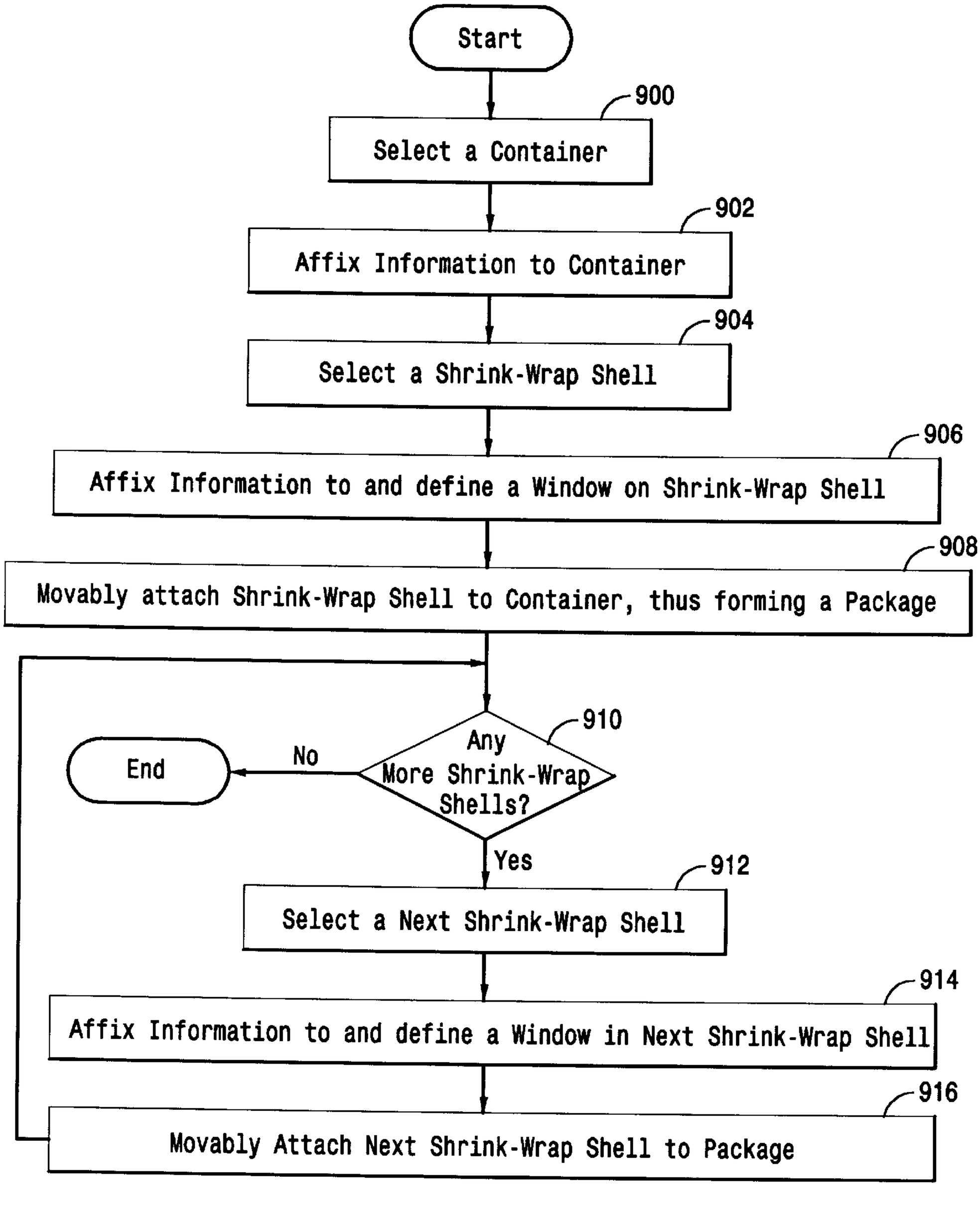

Start
900
Select a Container
902
Affix Information to Container
904
Select a Shrink-Wrap Shell
906
Affix Information to and define a Window on Shrink-Wrap Shell
908
Movably attach Shrink-Wrap Shell to Container, thus forming a Package
910
Any More Shrink-Wrap Shells?
No
End
Yes
912
Select a Next Shrink-Wrap Shell
914
Affix Information to and define a Window in Next Shrink-Wrap Shell
916
Movably Attach Next Shrink-Wrap Shell to Package

FIG. 9

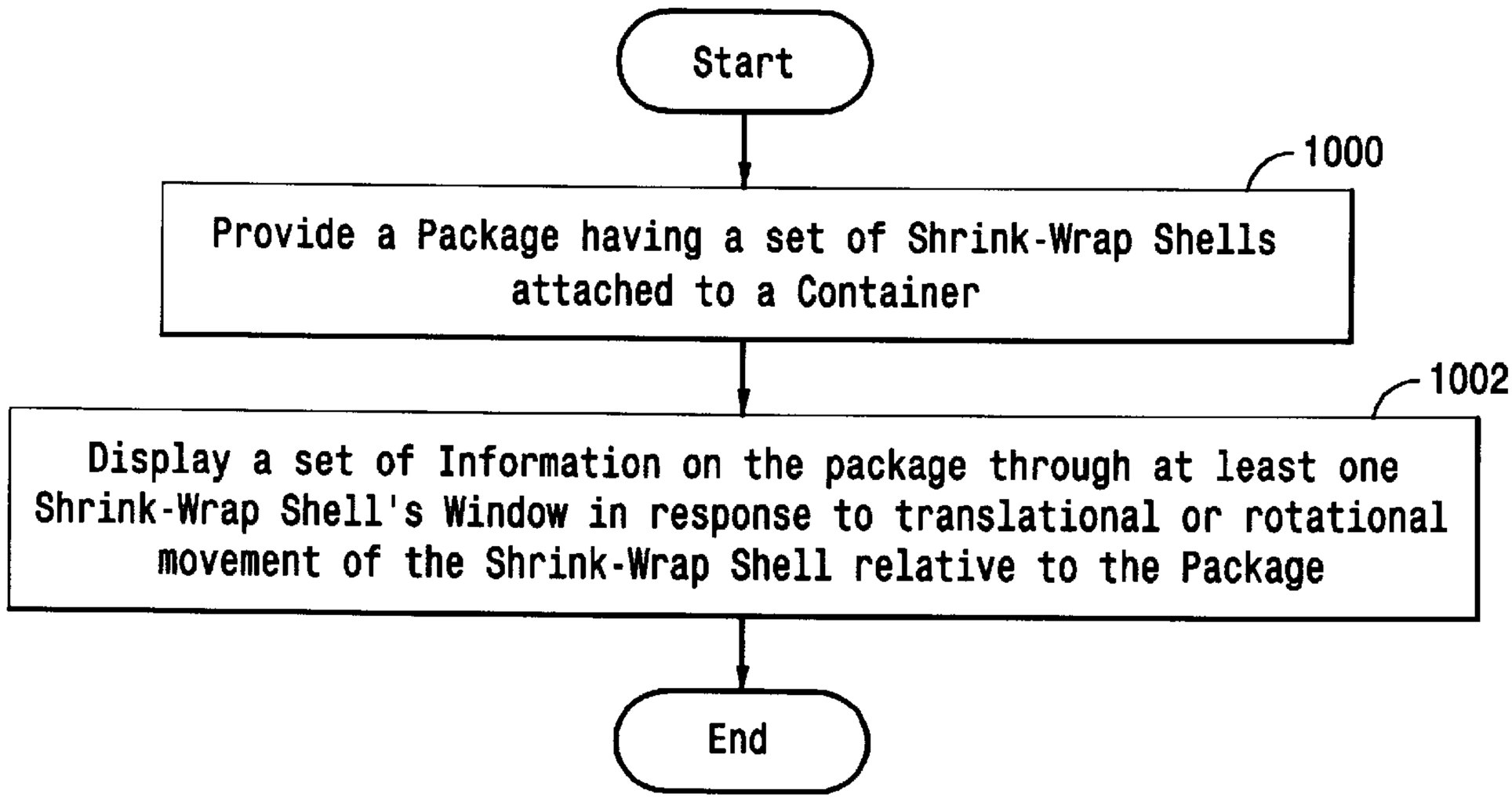

Start
1000
Provide a Package having a set of Shrink-Wrap Shells attached to a Container
1002
Display a set of Information on the package through at least one Shrink-Wrap Shell's Window in response to translational or rotational movement of the Shrink-Wrap Shell relative to the Package
End

FIG. 10

APPARATUS AND METHOD FOR INCREASING AN EFFECTIVE INFORMATION CARRYING SURFACE AREA ON A CONTAINER

CROSS-REFERENCE TO RELATED APPLICATIONS

The present application is related to and incorporates by reference pending U.S. patent application Ser. No. 08/558,743, filed Nov. 16, 1995, for an invention entitled "A System and Method for Using a Rotatable Device to Display Visual Artwork," by Stephen M. Key, and pending U.S. patent application Ser. No. (unknown), filed Feb. 08, 1996, for an invention entitled "System And Method Using A Rotatable Device For Presenting Information On A Pharmaceutical Container", also by Stephen M. Key.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates generally to devices and methods for labeling containers and more particularly for increasing an effective information carrying label area on a container.

2. Description of the Prior Art

Product packaging provides a limited surface area on which to display information to shoppers. Advertising information, such as a brand-name, features, certifications, awards or special offers displayed on a product's packaging enables manufacturers to establish and maintain a product image. As a product sits on a shelf, advertising information can catch a consumer's eyes and, upon closer examination, present product attributes favorably. Advertising information can determine whether a consumer purchases a product. Besides advertising information, the product packaging's limited area may be needed for required information, such as a Universal Product Code (UPC), warnings, instructions and manufacturer's information. Product packaging surfaces often offer less area than would be desired for these critical types of information. Furthermore, increasing government regulations for labeling and the "green/eco-" movement to reduce the total amount of packaging are likely to make packaging surfaces more crowded.

One way to display more information is to reduce the required labeling's "point size," but this discourages consumers from studying the text or graphics. Alternatively, required labeling information can be printed on a separate sheet of paper inside the product's packaging, but the information sheet can become separated from the product, which in the case of medical prescription products may cause serious problems.

U.S. Pat. No. 5,342,093, discloses a wrap-around label having a contact portion, an overlap portion, a transparent release coating, and an adhesive coating. The overlap portion may be peeled away from the contact portion to expose the front surface of the contact portion. Thus, both the overlap portion and the contact portion can display product information.

U.S. Pat. No. 5,154,448 discloses a layered scratch-off label in which a thin surface film can be scratched away to reveal an underlying layer. Thus, both the thin surface film and the second layer can display product information.

The peel-away and scratch-off approaches increase the effective surface area of packaging, but the product's original appearance is altered and the removed layers must be preserved or disposed of, thereby losing some information.

Furthermore, the two patent applications incorporated by reference above require bounding ridges or their equivalent to constrain a moveable information containing label. It would be useful to have a technique for affixing such moveable labels without employing such bounding ridges.

SUMMARY OF THE INVENTION

The present invention provides an apparatus and a method for providing an increased effective information carrying surface area on a container. The apparatus is preferably a package comprised of a container and a shell. The container's outer surface has applied directly to it one or more sets of information fields, preferably containing information about the package's contents. The shell also has a variety of product information visible on or through its outer surface. The shell is preferably formed of a shrink wrap material fitted to conform loosely to the contours of the container, so that the shell can rotate freely. Text and graphic information fields are affixed using conventional printing techniques on the shrink wrap. The shell preferably includes at least one transparent window which enables selective viewing of information on the package as the shell is rotated. A shell comprised of shrink-wrap material, when heated, conforms to and is secured by the container's surface features, without requiring bounding ridges or other mechanisms.

The method for manufacturing the present invention preferably begins with lithographing or silk-screening a first set of information fields to a container. An outer shell is formed of heat-shrink material, containing at least one transparent window, and information is added to the shell material using conventional printing techniques. Next the shell is positioned around the container and heated to shrink the shell to conform to the outer side of the container. Once the shell has cooled, then, as the shell is rotated, information displayed on the container surface can be viewed through the transparent window. Optionally, a lubricant can be applied to the container surface prior to shrinking the shell, to reduce friction between the shell and the container.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a pictorial diagram illustrating a preferred apparatus for providing an increased effective information carrying surface area on a container;

FIG. **2** is a cross-sectional view of the preferred embodiment shown in FIG. **1**;

FIG. **3** is an exploded view of the preferred embodiment shown in FIG. **1**;

FIG. **4** is a pictorial diagram of a first alternate embodiment;

FIG. **5** is a cross-sectional view of the first alternate embodiment shown in FIG. **4**;

FIG. **6** is a pictorial diagram of a second alternate embodiment;

FIG. **7** is a pictorial diagram of a third alternate embodiment;

FIG. **8** is an exploded view of the third alternate embodiment shown in FIG. **7**;

FIG. **9** is a flowchart illustrating a preferred manufacturing of the present invention; and

FIG. **10** is a flowchart of a preferred method for using the apparatus of FIG. **1**.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to FIG. **1**, a pictorial diagram illustrating a preferred apparatus or package for providing an increased

effective information carrying surface area for a container **102** is shown. The package **100** comprises a container **102** having a curved shoulder **120** and a bottom **106**, a top portion **104**, a set of information fields **108** and **110**, and a shell **116** with a shell window **112**. The container **102** may be formed of any suitable material including a flexible synthetic such as polypropylene or an acrylic resin, glass, plastic, organic, etc. The container **102** may itself be a food product, such as a banana or an apple. The set of information fields **108** and **110** may comprise one or any number of information fields, but for purposes of this disclosure only two fields (i.e. a first information field **108** and a second information field **110**) are shown. The two information fields **108**, **110** are portions of the container **102** surface, preferably between the top portion **104** and the bottom **106**, onto which product information such as ingredients, advertisements, warnings, and so forth may be attached. Within each information field **108**, **110** information may be attached or applied using any effective method, including a conventional silk-screening or lithographic process.

The shell **116** is disposed over the container **102** concentrically and is rotatable around a y-axis **122** of container **102** in response to a first rotation force **114**. Below the curved shoulder **120** portion, the diameter of the shell **116** preferably decreases in a gradual taper towards the bottom **106**. The shell **116** is preferably comprised of a "shrink-wrap" material (i.e. a heat-shrinkable PVC film such as "NINJA" film, manufactured by the Mitsubishi Group for Uniflex Corp. of Anaheim Hills, Calif.). The known conventional process for attaching shrink-wrap to the container **102** includes disposing the shrink-wrap over the container **102**, heating the shrink-wrap to achieve a predetermined shrinkage about the container **102**, and cooling the shrink-wrap. As the shrink-wrap shell is heated it conforms to surface features of container **102** and thus becomes the shell **116**. The temperature and duration of heating determine the coefficient of friction between the container **102** and the shell **116**.

The curved shoulder **120** and the downward taper of shell **116** together prevent shell **116** from detaching from container **102** and enable aligning the shell window **112** to the information fields **108**, **110** on the container **102**. The container **102** contours provide a means for keeping the shell **116** from sliding off of the container **102**. If the container **102** does not have contours, then the shrink-wrap is extended past the top portion **104** and the bottom **106** of the container **102** to secure the shell **116** after the heating step. Those skilled in the art will recognize that, while present in the preferred embodiment, neither the curved shoulder **120** nor the shell **116**'s gradual taper are essential to practicing the present invention.

The shell **116** inner and/or outer surface is selectively covered with textual or graphic information. The information on the shell **116** is also preferably applied to the inside surface (i.e. the surface facing the container **102**) of the shell **116** using conventional silk-screening or lithographic methods. Shell **116** also includes a transparent shell window **112**. Most of the shell **116** area is preferably covered with information but the shell window **112** is preferably transparent to permit the information fields **108**, **110** to be viewed through shell window **112** selectively as the shell **116** is rotated around the container **102**. The shell window **112** is preferably a contiguous part of the shell **116** and does not form a hole or aperture through the shell **116**, thus preventing foreign objects and moisture from entering the area between the container **102** and shell **116**. Alternatively, the shell window **112** could be formed by cutting out a section of the shell **116**. Although use of the transparent shell window **112** is preferred to a cut-out section formed in the shell **116**, use of a cut-out has the advantage of possibly lowering production costs under some circumstances. While only one shell window **112** is shown in FIG. **1**, alternatively shell **116** could comprise multiple shell windows, each at a given time revealing a different set of information fields on the container **102**.

The freedom of shell **116** to rotate around the container **102** can be ensured by:

applying to the inner surface of shell **116** a "facilitating" ink which dries slick and thereby facilitates slippage of the shell **116** against the container **102** or alternatively, by applying facilitating ink also to the outer surface of the container **102**;

heating the shrink-wrap less so that it shrinks less (this is currently the preferred embodiment);

using a bigger shrink-wrap sleeve so that when the shrink-wrap is heated it does not shrink as tightly around container **102**; and

sealing the container before applying the shrink-wrap so that, during application of the shrink-wrap, heating causes the container **102** to expand slightly and limit shrinkage of the shrink-wrap, thereby, after the shrink wrap and container **102** cools, permitting the shell **116** to freely rotate around the container **102**.

FIG. **2** shows a cross-section **200** of the preferred embodiment **100** of FIG. **1**. The curved shoulder **120** portion of the shell **116** prevents the shell **116** from moving downward toward the container bottom **106**. The tapered portion of shell **116** prevents the shell from moving upward. Thus, due to the curved shoulder **120** portion and the tapered portion, the shell **116** remains secured to the container **102** in the direction along the y-axis **122**.

FIG. **3** is an exploded view **300** of the preferred embodiment of FIG. **1** showing the shell **116** detached from the container **102** to reveal the container's **102** two information fields **108** and **110**.

Different information fields are seen through the shell window **112** depending upon the relative position of shell **116** with respect to container **102**. Thus, starting from the position shown in FIG. **1**, if the shell **116** is rotated clockwise (as viewed from above the top portion **104** looking downward) around the y-axis **122** in response to a first rotation force **114**, as indicated by the arrow in FIG. **1**, then the first information field **108** containing "Other Product Information" will become centered in shell window **112**. Starting again from the position shown in FIG. **1**, if alternatively the shell **116** is rotated counter-clockwise, then the second information field **110** containing "Ingredients" will become centered in the shell window **112**.

Alternatively, an information field on the container **102** may be a transparent container window (not shown) that permits the product or contents of the package **100** to be seen through the shell window **112** by a shopper. The container window may also be used to permit exposure of the contents of the package **100** during quality control operations. For example, to verify that the contents are of a uniform color or consistency, an energy source (such as visible light, ultra-violet light, infra-red light, heat, radiation, or the like) may expose the contents through the shell window **112**, while a monitoring device records light or energy reflected from the contents of the package **100**.

Referring now to FIG. **4**, a pictorial diagram of a first alternate embodiment **400** is shown. In the first alternate embodiment **400**, the preferred shell **116** of FIG. **1** is

replaced by a first alternate shell **416** which preferably retains all of the properties of shell **116**, except that first alternate shell **416** does not have the taper of the shell **116** and instead comprises a set of latitudinal ridges **404** and a curved base **406** which provide an additional means for securing the first alternate shell **416** to a first alternate container **402**. The first alternate shell **416** remains rotatable in response to the first rotation force **114** around the y-axis **122**.

Referring now to FIG. **5**, a cross-sectional view of the first alternate embodiment **500** of FIG. **4** is shown. The first alternate container **402** further comprises a set of latitudinal indents **502**. As discussed above, the shrink-wrap that eventually forms the first alternate shell **416** when heated conforms to the shape of the first alternate container **402**. Thus the rounded surface near the top portion **104** of the first alternate container **402** enables the curved shoulder **120** of first alternate shell **416** to be formed, the set of indents **502** enables the set of ridges **404** to be formed, and the curved bottom **106** of the container **412** enables the curved base **406** portion of first alternate shell **416** to be formed.

The set of indents **502** interlock concentrically with the set of ridges **404** to secure the shell **416** to the container **402** in the direction along the y-axis **122** of the container **402**, while permitting the shell **416** to rotate around y-axis **122** of container **402** so that shell window **112** selectively displays different information fields **108**, **110**. A shell can be movably attached to a container alternately by equivalent devices, including, instead of the set of ridges **404** and indents **502**, sets of dimples on the container and on the shell, thereby permitting a range of incremental movement around and along the y-axis **122** of the container. Dimples are defined as half-spherical structures formed on the container and projecting either outwardly or inwardly from the container's outer surface. The dimples may alternatively be formed in other geometrical shapes.

Referring now to FIG. **6**, a pictorial diagram of a second alternate embodiment **600** is shown. In the second alternate embodiment **600**, the first alternate shell **416** of the first alternate embodiment of is replaced by a second alternate shell **616** and two more information fields (a third information field **604**, a fourth information field **606**) are added. The second alternate shell **616** preferably retains all properties of the first alternate shell **416**, except for eliminating the curved shoulder **120** and the curved base **416** so that the second alternate shell **616** may now be responsive to the translation force **302** along the y-axis **122**. The translation force **302** can incrementally move the second alternate shell **616** along the y-axis **122** of a second alternate container **602**. The shrink-wrap forming the second alternate shell **616** is preferably sufficiently elastic to permit the set of indents **502** to de-couple from the set of ridges **404** and permit the second alternate shell **616** to move along the y-axis **122**.

One of the four information fields **108**, **110**, **604**, **606** is revealed through the shell window **112** depending upon the relative position of second alternate shell with respect to the second alternate container **602**. Thus, starting from the shell window **112** position shown in FIG. **6**, if the second alternate shell **616** is rotated clockwise (as viewed from the top portion **104** of the second alternate container **602** and looking downward) around the y-axis **122** in response to a rotational force as indicated by arrow **114**, and translated upward along the y-axis **122** in response to the translation force **302**, then the first information field **108** containing "Other Product Information" will become centered the shell window **112**. Starting again from the shell window **112** position shown in FIG. **6**, if the second alternate shell **616** is rotated counter-clockwise around the y-axis **122** and translated upward along y-axis **122**, then the second information field **110** containing "Ingredients" will become centered in the shell window **112**. Thirdly, starting from the shell window **112** position shown in FIG. **6**, if the second alternate shell **616** is rotated clockwise around y-axis **122** and translated downward, then the third information field **604** containing "Advertisement" will become centered in the shell window **112**. Lastly, starting from the shell window **112** position shown in FIG. **6**, if the second alternate shell **616** is rotated counter-clockwise and translated downward, then the fourth information field **606** containing "Warnings" will become centered in the shell window **112**.

FIG. **7** shows a pictorial diagram of a third alternate embodiment **700** in which the preferred shell **116** is replaced by a inner shell **716** and by an outer shell **717** which each preferably include the properties of shell **116**, with the following differences. While the inner shell **716** moves with respect to the third alternate container **702** in the same manner as the preferred shell **116**, the inner shell **716** further comprises a fifth information field **708** and a sixth information field **709** (See FIG. **8**) comparable to the four information fields **108**, **110**, **604**, **606**, but preferably containing additional information. The outer shell **717** is movably attached to, and concentrically encircles, the inner shell **716**. The outer shell **717** comprises an outer shell window **706** that, depending upon the outer shell's **717** relative position with respect to the inner shell **716**, selectively displays the fifth and sixth information fields **708**, **709**.

As the outer shell **717** is heat shrunk around the inner shell **716**, the inner shell **716** is also shrunk by an additional amount. Thus, when the inner shell **716** is first attached to the container **702**, the duration of heating should be reduced by a time sufficient to allow for the additional heating experienced during heat shrinkage of the outer shell **717**. Furthermore, a friction inhibiting substance may be applied to the outer surface of the inner shell **716** to prevent the outer shell **717** from sticking to inner shell **716** during the heating step.

Thus, starting from the outer shell window **706** position shown in FIG. **7**, if in response to a second rotation force **712** the outer shell **717** is rotated clockwise (as seen from above top portion **104** looking downward) around the y-axis **122** while not experiencing a second translation force **710**, then the fifth information field **708** containing "Manufacturing Date" will be displayed in the outer shell window **706**. However, if instead the outer shell **717** is rotated counter-clockwise around the y-axis **122** in response to a second rotation force **712**, then the sixth information field **709** containing "Expiration Date" will be centered in the outer shell window **706**. According to the movement of the inner shell **716** with respect to the container **702** and the movement of the outer shell **717** with respect to the inner shell **716**, each of the four information fields **108**, **110**, **604**, **606** and the fifth and sixth information fields **708**, **709** may be displayed through the shell window **112** and/or the outer shell window **706**. Those skilled in the art will recognize that additional tapered or straight shells may be movably attached to either the container **702**, the inner shell **716**, the outer shell **717**, and so on.

FIG. **8** is an exploded view of the third alternate embodiment **700**, with the inner shell **716** detached from the third alternate container **702** to show the third alternate container's **702** four information fields **108**, **110**, **604**, **606**. The outer shell **717** is also shown detached from the inner shell **716** so that the inner shell's **716** fifth and sixth information fields **708**, **709** may be clearly seen.

FIG. **9** is a flowchart illustrating a preferred method for manufacturing the present invention. The method begins in step **900** by selecting a container **102**. Next, in step **902**, a first set of information fields, containing either graphic or textual information, is affixed to the container **102** by for example a lithographic or silk-screen process. In step **904**, a shrink-wrap material is selected from which to form the shell **116**. In step **906**, a second set of information fields, containing either graphic or textual information, is affixed to the shrink-wrap shell, for example by a lithographic or silk-screen process. In step **908**, the shrink-wrap is movably attached to the container **102** to form the package **100**, such as by disposing the shrink-wrap material over the container **102**, applying heat until the shrink-wrap conforms to the surface features of the container **102** while still being able to rotate around the container **102**, and then cooling the shrink wrap and the container **102**. During the course of heating in step **908** the shrink-wrap material becomes the shell **116**. In step **910**, if additional shrink-wrap shells are to be applied, the method proceeds to step **912**, else the method ends. In step **912**, a next shrink-wrap shell is selected from which to form the outer shell **704**. In step **914**, a next set of information fields, containing either graphic or textual information, is affixed to the outer shell **704**, again by for example lithographic or silk-screen process. In step **916**, the next shrink-wrap shell is movably attached to the inner shell **702** to form the outer shell **704**, such as by coating a friction inhibitor substance onto the shrink-wrap material already movably attached to the container **102**, disposing the shrink-wrap material over the container **102**, heating until the shrink-wrap conforms to the surface features of the container **102** while still being able to rotate around the container **102**, and then cooling the shrink wrap and container **102**. After step **916**, the preferred method returns to step **910**.

Referring now to FIG. **10**, a flowchart of a preferred method for using the apparatus of FIG. **1** begins in step **1000** where the package **100** having one or more shrink-wrap shells attached to the container **102** is provided. Next, in step **1002**, in response to either translational or rotational forces on the shrink-wrap shell's window the package **100** displays a set of information through at least one shrink-wrap shell's window, depending on the shrink-wrap shell window's position with respect to the container and any underlying shrink-wrap shells. After step **1020**, the preferred method ends.

While the present invention has been described with reference to certain preferred embodiments, those skilled in the art will recognize that various modifications may be provided. For example, although the preferred embodiment describes translatable and rotatable shells disposed on cylindrical containers, those skilled in the art will recognize that the present invention may also be embodied on flat surfaced containers and packages. In a flat surface embodiment, a flat window may be selectively moved to reveal information on a flat label.

Variations upon and modifications to the preferred embodiments are provided for by the present invention, which is limited only by the following claims.

What is claimed is:

1. An apparatus, for increasing an effective information carrying surface area, comprising:

a container having a top portion, a bottom portion, a longitudinal axis extending therebetween and surface irregularity;

a set of information fields arranged circumferentially about an outer surface of the container;

an opening, disposed at the top portion of the container, to enable dispensing of contents of the container;

a non-transparent heat shell comprising a heat shrinkable material heat shrunk onto the container, such that the shell is rotatable relative to the container about the longitudinal axis, the shell being adapted at an end thereof with an aperture to permit access to the opening;

a window disposed in the shell which selectively displays at least one information field in response to rotation of the shell with respect to the container; and

the shell conforming to the surface irregularity, the surface irregularity being at least partially covered by an inner surface of the shell, whereby movement of the shell along the longitudinal axis is restricted.

2. The apparatus of claim **1**, wherein the container is comprised of one from a group consisting of metal, glass, plastic, and organic materials.

3. The apparatus of claim **1**, wherein the plurality of information fields is comprised of one from a group consisting of alphanumeric information and graphic information.

4. The apparatus of claim **1**, wherein the plurality of information fields is comprised of one from a group consisting of product information, ingredients, an advertisement, a warning, and a date.

5. The apparatus of claim **1**, wherein the plurality of information fields is affixed to the outer surface of the container using an adhesive.

6. The apparatus of claim **1**, wherein:

the surface irregularity comprises a plurality of latitudinal indents;

the shell further comprises a plurality of latitudinal ridges corresponding to and cooperating with the plurality of latitudinal indents; and

the shell is translatable in discrete increments along the longitudinal axis of the container.

7. The apparatus of claim **1**, wherein the surface irregularity includes one from a group consisting of a taper, a ridge, a dimple and an indentation.

8. A method, for providing an increased effective information carrying surface area, comprising the steps of:

providing a container having opposed ends and a longitudinal axis extending therebetween, the container further having an opening disposed at one of the ends for dispensing contents of the container and a surface irregularity formed on the container;

arranging a plurality of information fields circumferentially about an outer surface of the container;

providing a non-transparent shell having a transparent window and an inside surface, the shell being adapted at an end thereof with an aperture allowing access to the opening, the shell comprising a heat shrinkable wrap material shrunk onto the container and having an inside surface conforming to at least part of the surface irregularity such taht rotation of the shell relative to the container causes the window to reveal a at least one of the plurality of information fields; and

whereby movement of the shell along the longitudinal axis is restricted.

9. The method of claim **8**, wherein the surface irregularity comprises a plurality of latitudinal indents, and further comprising the step of forming a plurality of ridges on the inside surface of the shell corresponding to and cooperating with the plurality of latitudinal indents, wherein the plurality of ridges interlocking the plurality of indents with the plurality of ridges so that the shell is incrementally translatable with respect to the container.

10. A system for increasing an effective information carrying surface area, comprising:

a container having a first and a second end, a longitudinal axis extending therebetween and surface irregularity;

a plurality of information fields arranged circumferentially about an outer surface of the container;

means for dispensing contents of the container, the dispensing means being disposed at one of the first and second ends;

a non-transparent shell comprising a heat shrinkable material heat shrunk onto the container, such that the shell is rotatable relative to the container about the longitudinal axis, the shell being adapted at an end thereof with an aperture to permit access to the dispensing means;

means disposed in the shell for selectively displaying to a viewer at least one information field in response to rotation of the shell with respect to the container; and

the shell conforming to the surface irregularity to thereby inhibit movement of the shell relative to the container along the longitudinal axis.

11. The system of claim 10, wherein the container is comprised of one from a group consisting of metal, glass, plastic, and organic materials.

12. The system of claim 10, wherein the plurality of information fields is comprised of one from a group consisting of alphanumeric information and graphic information.

13. The system of claim 10, wherein the plurality of information fields is comprised of one from a group consisting of product information, ingredients, an advertisement, a warning, and a date.

14. The system of claim 10, wherein the plurality of information fields is affixed to the outer surface of the container using an adhesive.

15. The system of claim 10, wherein:

the surface irregularity comprises a plurality of latitudinal indents;

the shell further comprises a plurality of latitudinal ridges corresponding to and cooperating with the plurality of latitudinal indents; and

the shell is translatable in discrete increments along the longitudinal axis of the container.

16. The system of claim 10, wherein the surface irregularity includes one from a group consisting of a taper, a ridge, a dimple and an indention.

* * * * *

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO : 5,809,674

DATED : 9/22/98

INVENTOR(S) : Stephen M. Key

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In col. 6, lines 16, 24, 26, 27, 30, 35, 38, 42, 47, 53, 60, and 65, the reference number "717" should be replaced with reference number --704--.

Signed and Scaled this

Twenty-third Day of March, 1999

Attest:

Q. TODD DICKINSON

Attesting Officer

Acting Commissioner of Patents and Trademarks